

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/16653

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X/A | EP 1153931 A1 (NIPPON SHINYAKU CO., LTD.), 14 November, 2001 (14.11.01), Full text & WO 00/47601 A1 & JP 2000-598518 A | 8-9/1-7 |
| Y | REGNIER P. et al., Nucleotide sequence of the pnp gene of Escherichia coli encoding polynucleotide phosphorylase. Homology of the primary structure of the protein with the RNA-binding domain of ribosomal protein S1., J.Biol.Chem., 1987, 262(1), p.63-8 & Database GenBank accession No.J02638, 20 December, 1995 (20.12.95), REGNIER P. et al., E. coli rpsO and pnp genes encoding ribosomal proteinS15 and polynucleotide phosphorylase, complete cds. & Database PIR accession No.H65106, 01 March, 2002 (01.03.02), REGNIER P. et al., polyribonucleotide nucleotidyltransferase (EC 2.7.7.8) alpha chain - Escherichia coli (strain K-12). | 1-9 |
| Y | Database GenBank accession No.AP002564, 07 March, 2001 (07.03.01), ONISHI M. et al., Escherichia coli O157:H7 DNA, complete genome, section 15/20. | 1-9 |
| Y | CROFTON S. et al., Cloning and orientation of the gene encoding polynucleotide phosphorylase in Escherichia coli., J.Bacterial., 1983, 154(1), pages 58 to 64 | 1-9 |
| Y | EP 1221478 A2 (NATIONAL FOOD RESEARCH INSTITUTE, et al.), 10.July, 2002 (10.07.02), Full text & US 2002/0127677 A1 & US 2002/0160480 A1 & JP 2002-281986 A | 1-9 |
| Y | WO 98/36080 A1 (THE DOW CHEMICAL CO.), 20 August, 1998 (20.08.98), Full text & EP 970224 A1 & JP 2001-512317 A | 1-9 |
| Y | WO 99/57153 A1 (INSIGHT STRATEGY & MARKETING LTD.), 11 November, 1999 (11.11.99), Full text & US 6177545 B1 & US 6531129 B2 & US 2002/0004585 A1 & US 2002/0102619 A1 & US 2002/0114801 A1 & EP 1073682 A1 & JP 2002-512533 A | 1-9 |

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A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ C12N9/12, C07H21/02, C12P19/34, C12N15/54, C12N1/21//
(C12NP/12, C12R1:19)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ C12N9/12, C07H21/02, C12P19/34, C12N15/54, C12N1/21,
C12R1:19

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
BIOSIS/WPI (DIALOG), JSTPlus (JOIS), PubMed

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X/A | JP 53-110697 A (Mitsubishi Chemical Industries Ltd.), 27 September, 1978 (27.09.78), Full text (Family: none) | 8-9/1-7 |
| X/A | US 4927755 A (SOCIETE DE CONSEILS DE RECHERCHES ET D'APPLICATIOS SCIENTIFIQUES), 22 May, 1990 (22.05.90), Full text & DE 3837203 A & FR 2622451 A & FR 2622586 A & GB 2211847 A & JP 1-148196 A | 8-9/1-7 |

Further documents are listed in the continuation of Box C.

See patent family annex.

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| * Special categories of cited documents: | |
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| "O" | document referring to an oral disclosure, use, exhibition or other means |
| "P" | document published prior to the international filing date but later than the priority date claimed |
| "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "&" | document member of the same patent family |

Date of the actual completion of the international search
18 February, 2004 (18.02.04)

Date of mailing of the international search report
02 March, 2004 (02.03.04)

Name and mailing address of the ISA/
Japanese Patent Office

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|-----------|--|-----------------------|
| Y | EP 972836 A2 (THE INSTITUTE OF PHYSICAL & CHEMICAL RESEARCH), 19 January, 2000 (19.01.00), Full text & US 6280942 B1 & US 6528296 B1 & JP 2000-41686 A | 1-9 |
| Y | JP 9-23886 A (Wako Pure Chemical Industries, Ltd.), 28 January, 1997 (28.01.97), Full text (Family: none) | 2 |
| Y | WO 02/10370 A1 (Takeda Chemical Industries, Ltd.), 07 February, 2002 (07.02.02), Full text & JP 2002-253270 A & EP 1306430 A1 | 2 |
| Y | JP 2001-245666 A (Kyowa Hakko Kogyo Co., Ltd.), 11 September, 2001 (11.09.01), Full text (Family: none) | 2 |

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